

Walk Behind Power Trowel Operation JHA

Worked instructional example

Work and worksite

A finishing crew will use a manually guided gasoline powered trowel on a new outdoor slab on grade after the placing crew hands over the area. The operator works inside a separated finishing zone with a designated helper. This fictional learning example records planned controls; it supplies no actual inspections or work authorization.

- Open air slab with a released machine route and protected openings; no occupied enclosure or suspended slab.
- Concrete readiness, machine configuration and access must suit the actual unit and finishing method.
- This example excludes ride on machines, lifting the trowel, concrete placement and cosmetic sack and patch repairs.

Questions before work

- Which machine, guard, blades and operator release control will be used?
- Who releases the slab for machine access and maintains the finishing boundary?
- Could exhaust reach an enclosure, occupied doorway or air intake?

Task Hazard Control

1 Accept the finishing area

Hazard: An unready slab, opening or crossing worker can cause loss of control or a fall.

Control: Foreperson obtains the placing crew's handover, protects openings and establishes a machine zone with a clear operator route. Hold machine access until the slab and route suit the equipment.

Verification: Foreperson and operator walk the route before bringing the trowel into the zone.

Reasoning: A placing handover does not automatically release every finishing machine.

2 Move and position the stopped machine

Hazard: Awkward handling or an unexpected start can strain workers or expose them to rotating parts.

Control: Use the unit's specified handling method with assistance or suitable handling equipment. Stop and secure the engine before movement; keep people outside pinch points.

Verification: Operator checks the handling instructions and confirms the machine remains stopped during positioning.

Reasoning: The transport task has different exposures from troweling.

3 Inspect the machine and release control

Hazard: Missing guards or a defeated operator release control can permit blade contact or an uncontrolled machine.

Control: Trained operator checks guarding, blade attachment and controls using the model instructions. The manually guided powered trowel must shut off power when hands leave its handles; remove a defective unit from service.

Verification: Operator completes the manufacturer's safe control check without reaching into the rotating zone and records defects.

Reasoning: The release control must function; a visible handle alone proves nothing.

Complete the work and hand over

4 Make the finishing passes

Hazard: The rotating machine can pull, strike or trap the operator; wet cement contact and noise can injure workers.

Control: Operator follows the unit's starting and guiding method, keeps the helper outside its travel path and uses assessed skin, eye, foot and hearing protection. Keep exhaust out of occupied areas. Stop for loss of footing or unusual response.

Verification: Crew confirms stop communication and separation; operator watches footing and machine response throughout each pass.

Reasoning: The working position and machine zone control the contact exposure.

5 Stop for adjustment or cleaning

Hazard: Stored rotation and unintended starting can cause severe contact injury.

Control: Stop, wait for motion to cease and control hazardous energy under the applicable concrete equipment and manufacturer procedure before blade adjustment or servicing. Never bypass the release control.

Verification: Authorized person verifies the required safe state before entering the guarded area.

Reasoning: An idle engine is not evidence that servicing is safe.

6 Refuel and hand over

Hazard: Hot surfaces, fuel spills or an unsecured machine can create fire or trip hazards for the next crew.

Control: Refuel only after shutdown and cooling as instructed in the designated location. Collect residue, park the machine securely and identify unfinished edges or restricted areas to the receiving crew.

Verification: Foreperson checks the machine parking location and finishing area at handover.

Reasoning: The analysis ends when the next crew can use the area safely.

Pause and reassess

- Operator release control fails or guarding is damaged.
- The job moves indoors or exhaust can reach occupied space.
- Slab support, footing, machine response or nearby work changes.

Improve the controls

Needs improvement: Be careful around the equipment.

More useful: Trained operator checks guarding, blade attachment and controls using the model instructions. The manually guided powered trowel must shut off power when hands leave its handles; remove a defective unit from service.

Needs improvement: Check the area before starting.

More useful: Foreperson obtains the placing crew's handover, protects openings and establishes a machine zone with a clear operator route. Hold machine access until the slab and route suit the equipment.

Decisions that change the analysis

Can this example be used for a ride on trowel?

No. Ride on controls, access, handling and emergency actions differ. Develop that machine's analysis from its instructions rather than copying the manually guided release-control method.

What must be recorded before this example is used on a job?

Replace the scenario with the actual work, identify additional hazards with the crew, and record the applicable instructions, responsible people, inspection findings, unresolved actions and required authorization. A planned verification is not an inspection result.

Training needs

- Machine familiarization and demonstrated control of the actual unit.
- Wet cement contact, noise and exhaust hazard instruction.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

OSHA 1926.702 Concrete equipment and tools

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.702>

OSHA 1926.300 Hand and power tools

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.300>

OSHA 1926.21 Safety training and education

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This instructional example supplies no actual inspection results, signatures or work approval.